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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
MATTIS, JASON E	
ART UNIT	**PAPER NUMBER**
2665	10

DATE MAILED: 01/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/600,698	KOSTER ET AL.	
	Examiner	Art Unit	
	Jason E Mattis	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *8/5/02*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. PCT/EP98/08210.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *3*.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Drawings

1. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 7/21/00 has been approved. A proper drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The correction to the drawings will not be held in abeyance.

2. The Patent and Trademark Office no longer makes drawing changes. See 1017 O.G. 4. It is applicant's responsibility to ensure that the drawings are corrected. Corrections must be made in accordance with the instructions below.

INFORMATION ON HOW TO EFFECT DRAWING CHANGES

Replacement Drawing Sheets

Drawing changes must be made by presenting replacement figures which incorporate the desired changes and which comply with 37 CFR 1.84. An explanation of the changes made must be presented either in the drawing amendments, or remarks, section of the amendment. Any replacement drawing sheet must be identified in the top margin as "Replacement Sheet" and include all of the figures appearing on the immediate prior version of the sheet, even though only one figure may be amended. The figure or figure number of the amended drawing(s) must not be labeled as "amended." If the changes to the drawing figure(s) are not accepted by the examiner, applicant will be notified of any required corrective action in the next Office action. No further drawing submission will be required, unless applicant is notified.

Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and centered within the top margin.

Annotated Drawing Sheets

A marked-up copy of any amended drawing figure, including annotations indicating the changes made, may be submitted or required by the examiner. The annotated drawing

sheets must be clearly labeled as "Annotated Marked-up Drawings" and accompany the replacement sheets.

Timing of Corrections

Applicant is required to submit acceptable corrected drawings within the time period set in the Office action. See 37 CFR 1.85(a). Failure to take corrective action within the set period will result in ABANDONMENT of the application.

If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings MUST be filed within the THREE MONTH shortened statutory period set for reply in the "Notice of Allowability." Extensions of time may NOT be obtained under the provisions of 37 CFR 1.136 for filing the corrected drawings after the mailing of a Notice of Allowability.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 7, 8, 10, and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Otsuka et al. (U.S. Pat. 6038218).

With respect to claim 1, Otsuka et al. discloses a method for overload protection for an exchange, a signaling point **(See column 2 lines 58-67 of Otsuka et al. for reference to controlling traffic congestion in a signaling point)**. Otsuka et al. also discloses informing neighboring exchanges of an exchange, signaling point,

which detects an overload of itself of the level of overload congestion via an overload congestion value **(See column 6 line 66 to column 7 line11 and Figure 10 of Otsuka et al. for reference to signaling between two signaling points where one informs to other of its congestion level)**. Otsuka et al. further discloses computing in one neighboring exchange, signaling point, an effective congestion value from information of several overload congestion values **(See column 5 lines 15-37 and Figure 7 of Otsuka et al for reference to updating congestion levels based on current and past congestion condition)**. Otsuka et al. also discloses controlling protective measures, inhibiting the use of congested links, of one of the neighboring exchanges, signaling points, with respect to a congested exchange, signaling point **(See column 6 lines 26-55 of Otsuka et al. for reference to inhibiting signal links to a congested signaling point)**.

With respect to claim 7, Otsuka et al. discloses updating upon receiving a new overload congestion value, congestion condition level, the current effective congestion value, congestion condition level, using both the previous and received congestion value **(See column 5 lines 15-37 and Figure 7 of Otsuka et al. for reference to updating the congestion level using the old and new congestion level information upon receiving new congestion condition information)**.

With respect to claim 8, Otsuka et al. discloses computing an effective congestion value, congestion condition level, only when at least one positive congestion value has been received within a definite past time frame, indicating that congestion has been established **(See column 8 line 19 to column 9 line 16 of Otsuka et al. for**

reference to computing a congestion condition level only when a positive congestion level is received in a definite past time frame).

With respect to claim 10, Otsuka et al. discloses the protective measure comprising a measure selected from the group consisting of a denial of calls and an alternate routing of calls **(See column 6 lines 26-55 of Otsuka et al. for reference to inhibiting signal links, denying calls, to a congested signaling point)**.

With respect to claim 11, Otsuka et al. discloses mapping an effective congestion value, congestion condition level, onto a protection control value with a neighboring exchange, signaling point, controlling a protective measure implemented by the neighboring exchange, signaling point, using the protection control value, congestion condition level **(See column 6 line 66 to column 7 line 27 of Otsuka et al. for reference to a neighbor signaling point using a congested condition to control a link use-inhibiting procedure, which is a protective measure)**.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 2 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Otsuka et al. in view of Kim et al. (U.S. Pat. 5946296).

With respect to claim 2, Otsuka et al. does not disclose transferring the overload congestion value in a call processing message. Otsuka et al. further does not

disclose interpreting missing information as an overload congestion value of 0, when a call processing message arrives without an overload congesting value, and integrating the overload congestion value of 0 into the computation of the congestion value.

With respect to claim 9, Otsuka et al. does not disclose the congestion value being related to an ACL value in accordance with an ACC standard.

Kim et al., in the field of communications, discloses transferring the overload congestion value, an automatic congestion level, in a call processing message, a call release message **(See the abstract of Kim et al. for reference to receiving the overload congestion value in a call release message)**. Kim et al. also discloses interpreting missing information as an overload congestion value of 0, when a call processing message arrives without an overload congesting value, and integrating the overload congestion value of 0 into the computation of the congestion value **(See column 4 lines 22-50 and Figure 4 of Kim et al. for reference to interpreting a non set ACL value to be no congestion, and using this information, by not increasing the counter, to compute the congestion value)**. Kim et al. further discloses the congestion value being related to an ACL value in accordance with an ACC standard **(See the abstract of Kim et al. for reference to the congestion value being related to an ACL value)**. Using the ACL value to calculate a congestion value and interpreting no ACL value to be a 0 value of congestion has the advantage being able to implement the congestion control system within a currently used standard.

It would have been obvious to one of ordinary skill in the art at the time of the invention, when presented with the work of Kim et al., to combine the use of an ACL

value in calculation of a congestion value with the congestion control system of Otsuka et al., with the motivation being to be able to implement a congestion control system within a currently used standard.

5. Claims 3, 4, 5, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Otsuka et al. in view of Koga et al. (U.S. Pat. 5963541).

With respect to claim 3, Otsuka et al. does not disclose forming an average value upon expiration of a definite time interval using congestion values received during the definite time interval. Otsuka et al. also does not disclose using the average value to calculate the current effective congestion level.

With respect to claim 4, Otsuka et al. does not disclose computing, upon expiration of a time interval, a current effective congestion value with the aid of an average value of overload congestion values received within the time interval and an effective congestion value that was computed at the end of an immediately preceding time interval.

Koga et al., in the field of communications, discloses forming an average value upon expiration of a definite time interval using congestion values received during the definite time interval (See column 20 lines 42-48 and Figure 16B of Koga et al. for reference to forming an average value at the end of a sampling period T). Koga et al. also discloses using the average value to calculate the current effective congestion level (See column 21 lines 6-24 and Figure 17 of Koga et al. for reference to using the average value to calculate the current effective congestion level). Koga et al. further discloses computing, upon expiration of a time interval, a current effective congestion

value, Y(s), with the aid of an average value X(s) of overload congestion values received within the time interval and an effective congestion value that was computed at the end of an immediately preceding time interval, Y(s-1) (See column 20 line 21 to column 21 line 24 and Figure 17 of Koga et al. for reference to calculating a congestion value Y(s) with the aid of an average congestion value X(s) and the previous congestion value Y(s-1)). Using average congestion values and previous congestion values to calculate current congestion values has the advantage of providing a smooth response to control congestion, which eliminates high fluctuations in the amount of congestion control provided.

It would have been obvious to one of ordinary skill in the art at the time of the invention, when presented with the work of Koga et al., to combine the use of average and previous congestion values to calculate the current congestion value with the congestion control system of Otsuka et al., with the motivation being to provide a smooth response to control congestion, which eliminates high fluctuations in the amount of congest control provided.

With respect to claim 5, Otsuka et al. does not disclose forming time-interval-related average values from overload congestion values that are received in consecutive time intervals. Otsuka et al. also does not disclose weighting the average values and adding the weighted values over a time frame producing a summed weighted average.

Koga et al., in the field of communications, discloses forming time-interval-related average values from overload congestion values that are received in consecutive time

intervals (See column 20 line 21 to column 21 line 24 and Figure 17 of Koga et al. for reference to calculating an average value Y(s) with the aid of an average congestion value X(s) and the previous congestion value Y(s-1)). Koga et al. also discloses weighting the average values and adding the weighted values over a time frame producing a summed weighted average (See column 20 lines 21-41 of Koga et al. for reference to weighting ratio alpha used to weight current and previous average values which are added to form a new average value). Using a weighted average value has the advantage of providing a smooth response to control congestion, which eliminates high fluctuations in the amount of congestion control provided.

It would have been obvious to one of ordinary skill in the art at the time of the invention, when presented with the work of Koga et al., to combine the use of a weighted average of current and previous average values to calculate the current congestion value with the congestion control system of Otsuka et al., with the motivation being to provide a smooth response to control congestion, which eliminates high fluctuations in the amount of congest control provided.

With respect to claim 6, Otsuka et al. discloses forming an effective congestion value which is elevated by a specific first value relative to the last effective congestion value when the congestion value is greater than a specific first threshold value (See column 4 line 51 to column 5 line 37 for reference to raising a congestion value when the new value is above a threshold). Otsuka et al. also discloses forming an effective congestion value which is reduced by a specific second value relative to the last effective congestion value when the congestion value is less than a specific second

threshold value (See column 4 line 51 to column 5 line 37 for reference to lowering a congestion value when the new value is below a threshold). Otsuka et al. does not disclose using a last effective congestion value and an average value of congestion values received within an immediately preceding time interval.

Koga et al., in the field of communications discloses using a last effective congestion value and an average value of congestion values received within an immediately preceding time interval (See column 20 line 21 to column 21 line 24 and Figure 17 of Koga et al. for reference to calculating an average value Y(s) with the aid of an average congestion value X(s) and the previous congestion value Y(s-1)). Using average congestion values and previous congestion values to calculate current congestion values has the advantage of providing a smooth response to control congestion, which eliminates high fluctuations in the amount of congestion control provided.

It would have been obvious to one of ordinary skill in the art at the time of the invention, when presented with the work of Koga et al., to combine the use of average and previous congestion values to calculate the current congestion value with the congestion control system of Otsuka et al., with the motivation being to provide a smooth response to control congestion, which eliminates high fluctuations in the amount of congest control provided.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sorber (U.S. Pat. 6240067) discloses a method for managing

congestion control messages in a signaling system. Smallwood et al. (U.S. Pat. 6018518) discloses using a weighted flow control system. Pajuvirta et al. (U.S. Pat. 5970048) discloses congestion messages in a frame relay network. Gehi et al. discloses a congestion control system using weighted control parameters. Depelteau et al. (U.S. Pat. 6118764) discloses using weighted averages to control data rates to relieve congestion.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason E Mattis whose telephone number is (703) 305-8702. The examiner can normally be reached on M-F 8AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (703) 305-4798. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

jem

RICKY NGO
PRIMARY EXAMINER